## **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

## WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015033

Address: 333 Burma Road **Date Inspected:** 21-Jun-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 630 **Project Name:** SAS Superstructure Prime Contractor: American Bridge/Fluor Enterprises, a JV **OSM Departure Time:** 1500 Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name:** Yes No Bernard Docena, Jesse Cayabyab SiW McSentnell **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Weld Procedures Followed: Electrode to specification:** No Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A

N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: SAS OBG** 

## **Summary of Items Observed:**

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified 3W/4W-E, 1W/2W-D/S and the following observations were made:

# 1W/2W-D/S

#### D/S#6

Upon the arrival of the QA Inspector at the above identified location it was observed the ABF welder James Zhen was performing shielded metal arc welding (SMAW) repairs. The QA Inspector randomly observed the ABF welder was continuing the SMAW repairs started previously. The QA Inspector noted the repair appeared to be approximately 60% complete upon the arrival of QA Inspector in the AM. The QA Inspector randomly observed the SMAW parameters and they were 1/8" E7010 low hydrogen electrodes with 126 Amps. The QA Inspector noted the SMAW parameters appeared to be consistent with the ABF approved WPS identified as ABF-WPS-D1. 5-1001 repair. The QA Inspector randomly observed the ABF welder complete the SMAW repair on this date. The QA Inspector noted no grinding was performed on this date. The QA Inspector randomly observed and noted all of the welding and repairs at the longitudinal stiffeners appeared to be completed. The QA Inspector noted additional grinding tasks will need to be completed.

## 3W/4W-E

The QA Inspector randomly observed the ABF welder Rory Hogan and Jeremy Doleman had previously started the induction heating blankets on the outside of OBG to ensure the minimum required preheat of 150°F was achieved prior to welding. The QA Inspector randomly verified utilizing a 150°F temperature indicating marker

# WELDING INSPECTION REPORT

(Continued Page 2 of 2)

and noted the minimum required preheat had been achieved. The QA Inspector observed the ABF welder to be utilizing flux cored arc welding (FCAW) with the semi-automated bugo track system for the above identified weld joint. The QA Inspector randomly observed the Smith Emery (SE) QC Inspector identified as Tony Sherwood set the FCAW machine to the parameters of the approved WPS identified as ABF-WPS-D1.5-3042A The QA Inspector randomly observed the FCAW parameters were 247 Amps, 23.9 Volts and a travel speed of 320mm/min. The QA Inspector noted the ABF welder spent the remainder of the QA Inspectors shift performing the FCAW fill passes of the back weld. The QA Inspector randomly and periodically observed the welding at the above identified location. It was noted by the QA Inspector the ABF welder did not complete the FCAW on the QA Inspectors shift.

The QA Inspector spent the remainder of the shift researching and updating the ABF production welding tracking chart and logbook.

## **Summary of Conversations:**

As noted above.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Bettencourt,Rick	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer